

**Abstract**

In a process for preparing alkylaryl compounds by reacting a C<sub>10-14</sub>-monoolefin mixture with an aromatic hydrocarbon in the presence of an alkylation catalyst to form alkyl aromatic compounds and if appropriate subsequently sulfonating and neutralizing the resulting alkylaryl compounds, in the C<sub>10-14</sub>-monoolefins, on average, more than 0% and up to 100% of methyl branches are present in the longest carbon chain and fewer than 50% of the methyl branches are in the 2-, 3- and 4-position, calculated starting from the chain ends of the longest carbon chain.